SUMMARY

Standard 1 – Watershed Health

Due to the existing diversity and amount of vegetative cover on uplands, the existing and improving trend in stream vegetation and channel morphology, the cooperation exhibited in livestock management by permittees, and the generally small number of management issues still remaining to be dealt with, it is determined that the majority of Upper Muddy Creek watershed is meeting Standard #1. The few locations that do not meet Standard #1 contain large, active head-cuts due to gradient readjustment processes. These areas affect approximately 2,500 acres in Holler Draw and upper Muddy Creek. Current livestock grazing practices are not contributing to the non-attainment of Standard #1.

Due to the existing diversity and amount of vegetative cover on uplands, the existing condition of primarily ephemeral channels, the management responsibility by industry and agencies to design and mitigate impacts from roads on hydrologic flow events and soil erosion, and the generally small number of management issues that need to be dealt with, it is determined that the Barrel Springs Draw watershed is meeting Standard #1.

Due to the existing diversity and amount of vegetative cover on uplands, the existing condition of stream channels, the management responsibility by industry and agencies to design and mitigate impacts from roads on hydrologic flow events and soil erosion, and the cooperation of livestock permittees in implementing best management practices, it is determined that the majority of the Lower Muddy Creek watershed is meeting Standard #1. The few locations that do not meet Standard #1 contain large, active head-cuts due to gradient readjustment processes. These areas affect approximately 6,000 acres. Current livestock grazing practices are not contributing to the non-attainment of Standard #1.

Due to the existing diversity and amount of vegetative cover on uplands, the existing and improving trend in stream vegetation and channel morphology, the cooperation exhibited in livestock management by permittees, and the generally small number of management issues still remaining to be dealt with, it is determined that the Savery Creek watershed is meeting Standard #1.

Although the existing condition and vegetative cover on uplands could be improved, it is adequate for watershed function. Considering that the number of management issues still needing to be addressed are limited, the existing condition of primarily ephemeral channels, and the management responsibility by industry and agencies to design and mitigate impacts from roads on hydrologic flow events and soil erosion, it is determined that the Little Snake River watershed is meeting Standard #1.

Due to the existing condition and vegetative cover on uplands, the existing condition of primarily ephemeral channels, the management responsibility by industry and agencies to design and mitigate impacts from roads on hydrologic flow events and soil erosion, and the generally small number of management issues that need to be dealt with, it is determined that the Sand Creek watershed is meeting Standard #1.

Due to the existing condition and vegetative cover on uplands, the existing condition of primarily ephemeral channels, the management responsibility by industry and agencies to design and mitigate impacts from roads on hydrologic flow events and soil erosion, and the generally small number of management issues that need to be dealt with, it is determined that the Shell Creek watershed is meeting Standard #1.

Standard 2 – Riparian/Wetland Health

There has been a tremendous improvement in riparian/wetland condition within the assessment area over the last 15 to 20 years. However, there are still areas that need attention. Allotments containing riparian/wetland habitat that do not meeting this standard have been described previously and include: Cherokee, Sulphur Springs, Standard, Rasmussen, Sage Creek, Pine Grove, Powder Mountain, Powder Rim, Cow Creek, Espitalier, Adobe Town, Grindstone Springs, Sand Creek, and Red Creek allotments.

For lotic systems that are not meeting the minimum standard, there are 119 miles out of a total 319 miles. In lentic sites, there are 5 acres of a total 17 acres, that do not meet the minimum standard.

Most of the lentic and lotic sites not meeting the standard have been, or are in the process of being addressed in management plans or as range improvement projects. Continued progress in grazing management of livestock and wild horses (where they are present) will ensure further improvement of all riparian areas within this area. Although there are areas where desired future condition is yet to be reached in woody species dominance and composition in the upper watersheds, these areas still meet the minimum standard of rangeland health. Other than the specific allotments listed previously, the remainder of the allotments within this assessment area are meeting Standard #2 – Riparian/Wetland Health.

Standard 3 – Upland Vegetation Health

At the present, the review of upland vegetation conditions in the upper Colorado River watershed reveals generally good overall community health. Natural ecological and biological processes appear to be functioning adequately overall, although concerns about current, and especially near-future, functionality of certain community types remain. Specifically, the review group has determined that the majority of upland vegetation communities are properly functioning in relation to the seral stage to which they have evolved. Several specific communities, however, elicit concerns due to their uniformity of age and structural class, and the imminent onset of over-maturity to decadence throughout the majority of sagebrush stands, aspen stands, and juniper woodlands in the watershed and mountain shrub stands/mixed sagebrush/mountain shrub grasslands on winter-yearlong and transitional big game habitat.

Specifically, aspen stands throughout the watershed do not meet the standard for upland vegetation health due to decadence and decreasing occurrence and coverage of these stands. Although concentrated at the higher elevations, many of these stands are scattered through lower elevations in more isolated pockets, totaling around 14,000 acres of land within the watershed. The other vegetative community in the watershed that does not meet the standard for rangeland health is mountain shrub, sagebrush, and juniper plant communities located on mule deer crucial winter range between Horse Mountain and Poison Basin along the Wyoming/Colorado state line, and north from Baggs along Muddy Creek. These shrub communities cover approximately 40,000 acres within the watershed. Livestock grazing is a componet in the management scenario of these plant communities, but it is not the principle factor in non-attainment of this Standard.

Standard 4 – Wildlife/Threatened and Endangered Species/Fisheries Habitat Health, Weeds

Habitat needed to support healthy wildlife populations and listed or proposed threatened and endangered species is generally in acceptable condition. This does not mean that there aren't problems or concerns about wildlife habitat. The discussion under Standard #2 – Wetland/Riparian Health and Standard #3 – Upland Plant Health outlines the current conditions and recommendations for improving management of these resources. In many cases we may be meeting a standard but have a ways to go in order to meet our "desired or future" condition. On the other hand, our composition of native species is good, with just spot problems at this time with weeds. Due to the existing good condition of native vegetation and its ability to support the diverse wildlife populations we currently have, it is determined that the majority of Upper Colorado River watershed is meeting Standard #4 with respect to wildlife. The principal area deemed not to be meeting Standard #4 for wildlife habitat is the mule deer crucial winter range located between Horse Mountain and Poison Basin and north from Baggs along Muddy Creek through the Wild Horse and Dad juniper woodlands. This area encompasses about 40,000 acres of public land. The following recommendations address action to help meet future desired resource conditions. Livestock grazing is not a principle factor in the non-attainment of this standard.

The improved management of riparian habitats and successful reintroduction of Colorado River Cutthroat Trout into upper Muddy Creek, as well as other cold water fisheries that exist within the watershed, indicate both an upward trend and meeting Standard #4 for fisheries. However, many other sites that should support fisheries, currently do not. Standard #4 for fisheries is not being met on streams, which currently fail Standard #2 – Riparian/Wetland Health and/or Standard #5 – Water Quality. There are also

sites that are rated in proper functioning condition, but due to the lack of overhead cover (stream shading) exceed temperature requirements for some fish species and won't support them. However, these sites have not yet been defined. Due to the lack of credible data on the status of Catostomid and Cyprinid fishes in the watershed, whether Standard #4 is being met for these species is unknown.

Due to the existing good condition of native vegetation and the weed treatment program in place to control and/or eradicate weed problem areas as they are identified, it is determined that the majority of Upper Muddy Creek watershed is meeting Standard #4 with respect to weeds. There are no known areas of noxious weeds that are rapidly expanding and are not being treated. Although saltcedar is not yet being treated on a broad scale, it does not appear to be rapidly spreading to new locations. The few locations that do not meet Standard #4-Weeds are sites containing halogeton in Sand Creek allotment where the weed is invading native rangelands as a result of oil and gas road development and is not being treated. These areas affect approximately 50 acres.

Standard 5 – Water Quality

Within the assessment area, water quality impairment has not been identified by the State of Wyoming for the majority of the area. The following stream segments in the Upper Colorado River basin, which occur on BLM-administered public land, are on the current Wyoming State 303(d) list of impaired waters due to excessive sediment loading:

- Loco Creek (west fork), above the confluence with the main fork, Savery Creek drainage
- McKinney Creek, from confluence with Eagle Creek down to Muddy Creek
- Muddy Creek, from confluence with Littlefield Creek down to confluence with Alamosa Gulch
- Muddy Creek, from confluence with Barrel Springs Draw down to confluence with Little Snake River

The first three sites have livestock grazing identified as an impairment factor and are identified as Class II waters, although they currently do not support cold water fisheries. The last site on lower Muddy Creek has both livestock grazing and oil and gas development identified as impairment factors and is identified as a Class III water. Non-game fish species use it on a seasonal basis. Although specific compliance for the remaining segments is unknown, nothing within available data indicates this Standard is not being met.

Standard 6 – Air Quality

Within this assessment area there is no air quality criteria pollutant non-attainment areas for either state or federal standards as determined by the Wyoming DEQ. Due to prevailing winds, limited pollution within the general area, overall air quality meets this Standard.

Summary of Allotments not meeting Standards due to Livestock Grazing

A. Allotments described in this report that do not meet Standards due to Livestock Grazing:
    - Cherokee: Standard #2 - Riparian/Wetland Health, Standard #5 – Water Quality
    - Morgan-Boyer: Standard #5 – Water Quality
    - Rasmussen Subunit: Standard #2 –Riparian/Wetland Health
    - Standard: Standard #2 – Riparian/Wetland Health
    - West Loco: Standard #5 – Water Quality

B. Allotments described in previous allotment reports that do not meet Standards due to Livestock Grazing:
    - Adobe Town: Standard #2 – Riparian/Wetland Health
    - Beaver Dams: Standard #2 – Riparian/Wetland Health
    - Cow Creek: Standard #2 – Riparian/Wetland Health
    - Espitalier: Standard #2 – Riparian/Wetland Health

- Pine Grove/Bolten: Standard #2 – Riparian/Wetland Health, Standard #5 – Water Quality
- Powder Mountain: Standard #2 – Riparian/Wetland Health
- Powder Rim: Standard #2 – Riparian/Wetland Health
- Sage Creek: Standard #1 – Watershed Health, Standard #2 – Riparian/Wetland Health, Standard #3 – Upland Plant Health, Standard #4 – Wildlife Habitat Health, Standard #5 – Water Quality
- Sulphur Springs: Standard #2 – Riparian/Wetland Health, Standard #5 – Water Quality

Allotments listed in Table #1 of this document, that are not listed in A and B above, either meet all standards or if not meeting one or more standards, it is not due to livestock grazing.

C. Standards not being met due to causes other than livestock grazing:
   - Standard #1 - Head-cuts in the following drainages: Upper Muddy Creek, Holler Draw, Wild Horse Draw, Little Robbers Gulch, Cottonwood Creek; responsibility – BLM.
   - Standard #2 - Riparian/wetland health due to wild horses at the following locations: Kinney Rim Seeps, Moonshine Spring, Grindstone Spring, Hartt Cabin Seep and Artesian Well, Hangout Draw seep, Rotten Springs, Chimney Spring, upper Powder Spring; responsibility – BLM.
   - Standard #3 - Upland plant health in aspen plant communities wherever they occur in the watershed, upland plant health of sagebrush, juniper, and mountain shrub plant communities within mule deer crucial winter range between Horse Mountain and Poison Basin and along Muddy Creek north from Baggs; responsibility – BLM.
   - Standard #4 - Crucial winter range for mule deer between Horse Mountain and Poison Basin and along Muddy Creek north from Baggs; responsibility – BLM. Habitat for fisheries that are listed as impaired on the Wyoming 303(d) list; responsibility – BLM. Expansion of non-native invasive plants (halogeton) into native rangelands due to lack of control from improved roads in the Sand Creek drainage; responsibility – oil and gas industry.
   - Standard #5 - Sediment impairment to Muddy Creek from the confluence with Barrel Springs Draw to the Little Snake River, 303(d) list; responsibility – oil and gas industry.